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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,234	06/04/2001	Ernesto Palazzini	9457-023	4468

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EXAMINER	
LEWIS, PATRICK T	
ART UNIT	**PAPER NUMBER**
1623	

DATE MAILED: 08/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/873,234	PALAZZINI ET AL.	
	Examiner	Art Unit	
	Patrick T. Lewis	1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *26,27 and 29-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *26,27 and 29-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's Response dated July 25, 2005

1. Claims 26, 27, and 29-36 are pending. An action on the merits of claims 26, 27, and 29-36 is contained herein below.

2. The rejection of claims 26, 27, and 29-36 under 35 U.S.C. 103(a) is maintained for the reasons of record set forth in the Office Action dated January 25, 2005.

Rejections of Record Set Forth in the Office Action dated January 25, 2005

3. Claims 26-27 and 29-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Baggio et al. US 5,686,432 (Baggio), Cristofori et al. US 5,252,339 (Cristofori), and Marchi et al. US 5,496,807 (Marchi).

4. Applicant's arguments filed July 25, 2005 have been fully considered but they are not persuasive. Applicant's arguments are essentially the same as previously presented. Applicant argues: 1) Baggio does not teach dosages of up to 500 mg for sulodexide nor does Baggio teach the treatment of diabetic nephropathy; 2) Cristofori does not teach or suggest the administration of sulodexide for the treatment of diabetic nephropathy, and 3) Marchi does not teach a method for treating diabetic nephropathy by administering more than 150 mg sulodexide per day. The emphasis of applicant's arguments is that Baggio does not teach dosages of up to 500 mg of sulodexide (although claim 36 is the only pending claim reading upon dosages greater than 400 mg/day).

5. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Baggio teaches using sulodexide for treating patients suffering from chronic renal insufficiency subjected to peritoneal dialysis (column 2). The therapeutically effective dosages for this treatment depend both on the glycosaminoglycan used and on the kind of patient and can vary between a minimum of 20 and a maximum of 500 mg a day. Although the population being treated by Baggio (patients with chronic renal insufficiency) and the instantly treated population (patients with diabetic nephropathy) are described differently, one of ordinary skill in the art would have a reasonable expectation of success in treating either population using sulodexide. Applicant's attention is directed to columns 1-2 of Baggio wherein it reads:

> "The ability of sulodexide, a glycosaminoglycan of natural origin made by a heparin fraction having a low anticoagulant activity and by a dermatan fraction, of preventing and curing the nephropathy caused by the diabetes, by fighting against the phenomena that cause the alterations of the renal structure and function has been shown...
>
> ...pointed out how the peritoneal membrane shows structural and functional alterations during CAPD very similar to those observed in the proteinuric nephrotic syndromes. The similarity of such pathologic effects is due to the fact that the structural and functional alterations which occur at the level of the peritoneum during the dialysis closely follow the mechanism of the nephrotic syndrome.
>
> On the basis of such remarks some glycosaminoglycans like sulodexide, low molecular weight heparin and low molecular weight dermatan sulfate can be

> taken into consideration as possible active principles for treating patients suffering from chronic renal insufficiency subjected to peritoneal dialysis."

Applicant is further directed to Marchi et al. (column 2, lines 19-22) which teaches:

> "The diabetic nephropathy is a clinically well defined pathology characterized by proteinuria, hypertension, edema and renal insufficiency and generally occurs in patients suffering from diabetes from more than ten years."

Renal insufficiency is characteristic of patients having diabetic nephropathy, and thus, there is overlap in the two populations in question.

Although Baggio does not teach oral administration of sulodexide, Marchi teaches pharmaceutical compositions of sulodexide are administrable by oral, subcutaneous, intramuscular or intravenous routes for the treatment diabetic nephropathy (column 2, lines 65-67). Marchi teaches that sulodexide may be formulated into tablets, controlled release tablets, gastoresistant tablets, capsules, gastroresistant capsules, granulates or syrups (column 3, lines 1-5). Cristofori also teaches sulodexide compositions suitable for oral use (Abstract). More specifically, Cristofori claims pharmaceutical compositions for oral use in unit dosage form comprising 25-500 mgs by weight of sulodexide (claim 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Cristofori, Baggio, and Marchi to arrive at the instant invention as Baggio and Cristofori both teach dosages of up to 500 mg of sulodexide, which is taught in the prior art as being suitable for oral administration, for the treatment of renal insufficiency [diabetic nephropathy]. The instant claims are drawn the use of a known compound (sulodexide) for the treating a condition for which said compound is known to be useful for treating (diabetic nephropathy). Applicant admits

that the prior art teaches the use of sulodexide for treating diabetic nephropathy (see page 3 of Response dated July 25, 2005). At best, applicant has discovered the optimum or workable dosage ranges of sulodexide useful in treating diabetic nephropathy; however, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.

Conclusion

6. Claims 26-27 and 29-36 are pending. Claims 26-27 and 29-36 are rejected. No claims are allowed.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick T. Lewis whose telephone number is 571-272-0655. The examiner can normally be reached on Monday - Friday 10 am to 3 pm (Maxi Flex).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick T. Lewis, PhD
Examiner
Art Unit 1623

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